

**Translation**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>GUE 1243 B1 (PCT)</b>		FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. <b>PCT/FR2004/001365</b>		International filing date (day/month/year) <b>02.06.2004</b>	Priority date (day/month/year) <b>02.06.2003</b>	
International Patent Classification (IPC) or national classification and IPC				
Applicant <b>GUENIN, Dominique</b>				

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☒ (sent to the applicant and to the International Bureau) a total of 3 sheets, as follows:

☒ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of \_\_\_\_\_ (indicate type and number of electronic carrier(s)) \_\_\_\_\_ containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FR2004/001365

Box No. 1 Basis of the report.

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1, 3-11 \_\_\_\_\_ as originally filed/furnished
- pages\* 2, 2a \_\_\_\_\_ received by this Authority on 25.02.2005 with
- pages\* \_\_\_\_\_ received by this Authority on telefax
- ☒ the claims:
- nos. 2-10 \_\_\_\_\_ as originally filed/furnished
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* 1 \_\_\_\_\_ received by this Authority on 25.02.2005 with
- nos.\* \_\_\_\_\_ received by this Authority on telefax
- ☒ the drawings:
- sheets 1/5-5/5 \_\_\_\_\_ as originally filed/furnished
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (specify): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

## 1. Statement

Novelty (N)

Claims 4-10

YES

Claims 1-3

NO

Inventive step (IS)

Claims 4-10

YES

Claims 1-3

NO

Industrial applicability (IA)

Claims 1-10

YES

Claims -

NO

## 2. Citations and explanations (Rule 70.7)

Reference is made to the following documents:

D1: US 2002/112362 A1 (CORREA MAGALY ET AL)  
22 August 2002 (2002-08-22);

D2: US-A-5 327 611 (BALSTER ET AL) 12 July 1994  
(1994-07-12).

1. The application does not fulfil the requirements set forth in PCT Article 6 because claim 1 is not clear.

1.1 Claim 1 does not comply with the requirements of PCT Article 6 in so far as the subject matter for which protection is sought has not been defined clearly. The claim attempts to define said subject matter in terms of the result to be achieved, yet this merely amounts to stating the basic problem that the invention is intended to solve without providing the technical features necessary for arriving at said result. See:

(a) "by means of a dryer (8) that generates a

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first airflow (9) towards said head (2)";  
and

- (b) "in such a way that the air propelled by said dryer (8) and circulating inside said head (2) egresses in the vicinity of each opening through which it entered, by forming a second flow (10) in a direction substantially opposite that of the first flow (9)".

2. Moreover, notwithstanding the aforementioned lack of clarity, the subject matter of claims 1-3 does not appear to be novel under the terms of PCT Article 33(2). As a result, the requirements set forth in PCT Article 33(1) are not met.

- 2.1 Document D1, which is considered to be the prior art closest to the subject matter of claim 1, describes (cf. figures 1-3; the references between parentheses apply to said document):

a hairbrush including a handle (12) and a cylindrical, semi-cylindrical or planar head (14, 30, see paragraph 33 and figures 5a-5d) that extends from said handle (12) and comprises, on the surface thereof, bristles or projections (36) for untangling, smoothing and styling damp hair when blow-drying same by means of a drier that generates a first airflow towards said head, wherein said head (14, 30) is at least partially hollow (see figure 3) and has, at least in the area with said bristles or

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Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

projections (36), cylindrical through-holes (38) extending in a direction perpendicular and/or parallel to the longitudinal axis of said brush, and wherein the axes of the two openings in each of said through-holes (38) mutually form an angle of less than 90° (see figure 3) in such a way that the air propelled by said dryer and flowing inside said head egresses in the vicinity of each opening through which it entered, by forming a second flow in a direction substantially opposite that of the first flow.

2.2 Moreover, **D1** also describes the features in dependent claims 2 and 3 (see the direction of the holes in figures 3 and 5d (planar brush)).

3. The combination of features in dependent claims 4, 9 or 10 is not found in the prior art and cannot be derived in an obvious manner therefrom.

3.1 Document **D2** describes a hairbrush having an insert (24) that consists of a longitudinal bar (40) of which the ends are attached to the transverse end walls of said hairbrush head, and a plurality of arms (42A-42G). The hairbrush disclosed in claim 4 differs from the above in that the lower edge of said arms is not in engagement with the recess bottom.

The problem that the present difference is intended to solve can therefore be considered to

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be that of selecting the insert.	
<p>The solution to this problem, as proposed in claim 4 of the present application, can be considered to involve an inventive step because it is not known from, or suggested by, the prior art.</p>	
<p>3.2 Claims 5-8 are dependent on claim 4 and, as such, therefore also appear to fulfil the PCI requirements of novelty and inventive step. Claims 9 and 10 also appear to fulfil these requirements.</p>	

This disadvantage was recognized by Jean-Louis Wachtel, who proposed a first improvement to the conventional brushes in his patent FR 2,577,774, filed on February 28, 1985. This improvement consists of creating a circulation of air all the way through the head of the brush. As a result, the air that reaches the outer part passes through the thickness of the lock of hair and begins to pre-dry the opposite side of the lock, which does make the brushing operation a little faster.

10 A brush with a different design, but which also provides for the air current delivered by a hair dryer to pass all the way through its head, is described in the patent US 5,327,611, granted and published on July 12, 1994 in the name of Melvin Balster et al

15 However, in the case of a flat brush, for example like the one described in European patent application no. 0,141,532, filed on October 1, 1984 by the company Denroy Plastics Limited, only the part of the lock of hair in contact with the brush is being dried, and consequently, the circulation of air all the way through the head does not offer any advantage, given that the air passing through the lock of hair on the brush is then propelled into empty space.

25 One radical solution for intensifying the effects of the aeration would of course be to use an electric blow-brush like the one described in US patent application 2002/0112362, published on August 22, 2002 in the name of M. Correa et al.

30 However, this type of brush is heavy and hard to handle, and does not seem to exist with a semi-cylindrical head.

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Moreover, the simultaneous use of this electric blow-brush and a conventional hair dryer would not be very compatible with the initial energy-saving objective.

It is clear from the prior art that brushes wherein the  
5 head can be passed through by the air current delivered by a hand dryer are known, but that to date there is no brush that has the advantage of actually speeding up the drying and shaping process.

The present invention consists of creating dynamics for  
10 the air propelled by the hand dryer that are different from those provided by the known brushes, and that make it possible to obtain at least equal styling quality with a time savings that varies between 30% and 50% depending on the shape of the head of the brush. Moreover, since the hair  
15 is dried and shaped more rapidly, the hold of the style obtained is improved.



AMENDED CLAIM 1

1) Hairbrush comprising a handle (1) and a cylindrical,  
5 semi-cylindrical or flat head (2) that extends said handle  
and comprises surface bristles or tips (3) that are used to  
detangle, smooth and shape the wet hair (11) during the  
performance of a styling operation **using a dryer (8)**  
**generating a first air flow (9) in the direction of said**  
10 **head (2)**, said head (2) being at least partially hollowed  
out and having, at least in the area equipped with bristles  
or tips (3), parallelepipedic, cylindrical and/or oblong  
through-holes, the latter running perpendicular and/or  
parallel to the longitudinal axis (4) of the brush,  
15 characterized in that the axes (6) of the two openings (7)  
of each of said through-holes (5) form between them an angle  
of less than 90° **so that the air propelled by said dryer (8)**  
**and circulating inside said head (2) emerges in the vicinity**  
**of each of said openings through which it entered, thus**  
20 **constituting a second flow (10) in a direction approximately**  
**opposite that of the first flow (9).**